

PROCESSING DIVERSITY SIGNALS AT A  
MOBILE DEVICE USING PHASE ADJUSTMENTS

5 ABSTRACT OF THE DISCLOSURE

Processing diversity signals includes receiving diversity signals at a number of antennas. The diversity signals have communicated information, and the antennas are associated with channel paths. A phase of at least one diversity signal is adjusted. The diversity signals are combined to form a combined signal. The combined signal is  
10 processed to yield the communicated information. A combined complex channel gain estimate is determined from the combined signal. An individual complex channel gain estimate is calculated for each antenna from the combined complex channel gain estimate. Phase adjustments associated with the channel paths are established according to individual complex channel gain estimates. The phase adjustments are  
15 applied to next diversity signals having next communicated information. The next diversity signals are processed to yield the next communicated information.